

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
11 August 2005 (11.08.2005)

PCT

(10) International Publication Number
WO 2005/072680 A2

(51) International Patent Classification⁷: **A61K**

(21) International Application Number:
PCT/GB2005/000257

(22) International Filing Date: 26 January 2005 (26.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

0401846.1	28 January 2004 (28.01.2004)	GB
0401840.4	28 January 2004 (28.01.2004)	GB
0401838.8	28 January 2004 (28.01.2004)	GB
0401841.2	28 January 2004 (28.01.2004)	GB
0405078.7	5 March 2004 (05.03.2004)	GB

(71) Applicant (for all designated States except US): **OXONICA, LTD [GB/GB]**; Unit 7, Begbroke Science & Business Park, Sandy Lane, Yarnton, Kidlington, Oxford OX5 1PF (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **WAKEFIELD,**

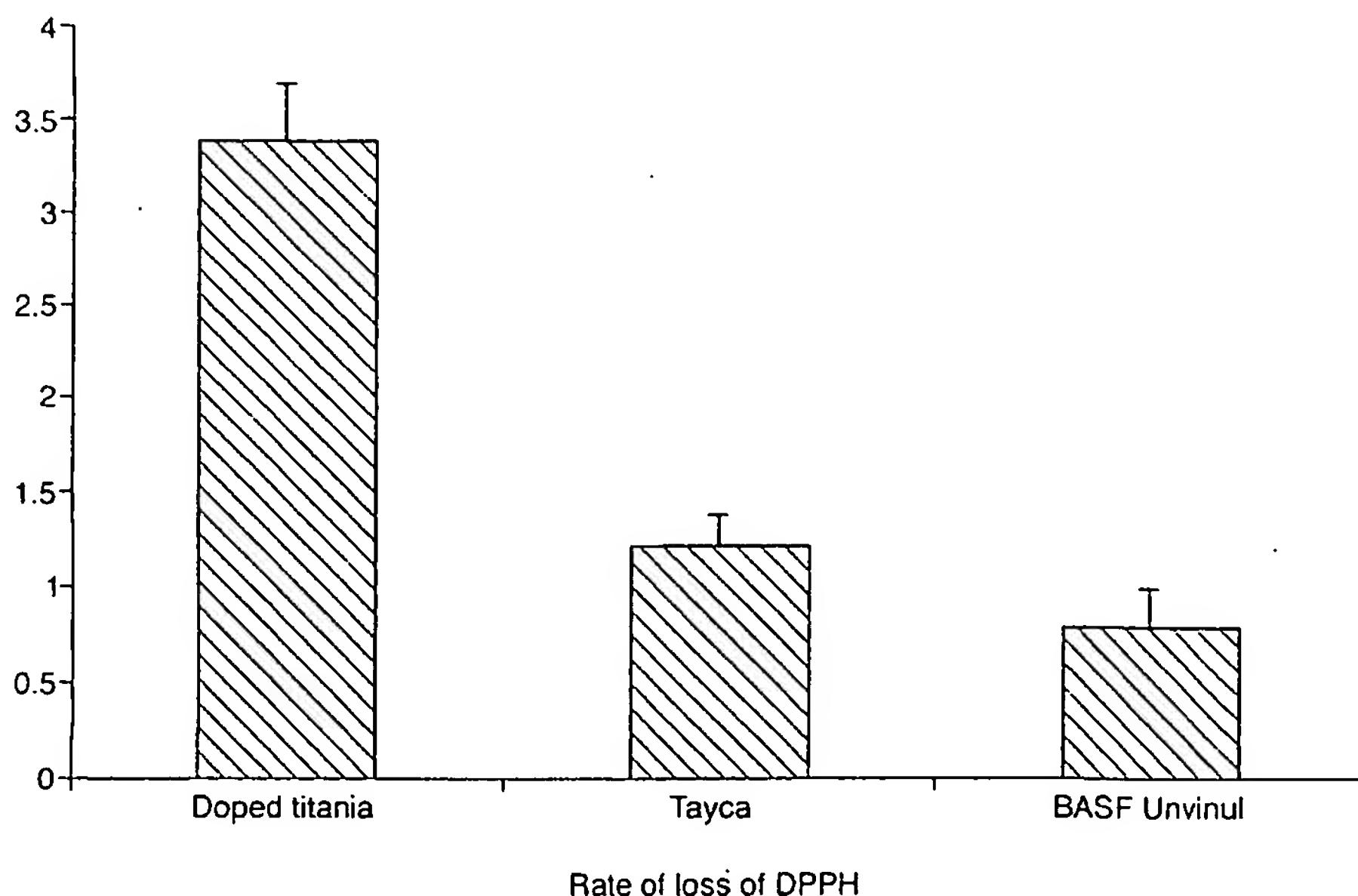
Gareth [GB/GB]; Oxonica Limited, Begbroke Science & Business Park, Unit 7, Sandy Lane, Yarnton, Kidlington, Oxford OX5 1PF (GB). **PARK, Barry, George [GB/GB]**; Oxonica Limited, Begbroke Science & Business Park, Unit 7, Sandy Lane, Yarnton, Kidlington, Oxford OX5 1PF (GB). **LIPSCOMB, Sarah [GB/GB]**; Oxonica Limited, Begbroke Science & Business Park, Unit 7, Sandy Lane, Yarnton, Kidlington, Oxford OX5 1PF (GB). **HOLLAND, Edward [GB/GB]**; Oxonica Limited, Unit 7, Begbroke Science & Business Park, Sandy Lane, Yarnton, Kidlington OX5 1PF (GB).

(74) Agents: **BENSON, John, Everett et al.; J.A. Kemp & Co., 14 South Square, Gray's Inn, London WC1R 5JJ (GB).**

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: NOVEL PARTICLES AND COMPOSITIONS



(57) Abstract: A particle of TiO₂ or ZnO which has been doped with one or more other elements such that the concentration of dopant in the surface of the particle is greater than that at the core of the particle, and compositions containing such particles for use as sunscreens or in veterinary, agricultural or horticultural compositions or as coatings for plastics and other materials.

WO 2005/072680 A2



- (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.